

REMARKS

The Official Action mailed May 21, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to September 21, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on December 19, 2001, April 26, 2002, July 5, 2002, and July 16, 2002.

With respect to the Information Disclosure Statement (IDS) filed on June 29, 2001, the Official Action states that "[regarding] those references crossed in PTO-1449 of Paper No. 2, the Examiner was unable to find these references in parent case 09/352,198 as well as the instant application" (p. 8, Paper No. 15). The Applicants note that all the references that were not considered by the Examiner in the present application were considered by the Examiner in the '198 application. Therefore, the references should have been available in the '198 application. The Applicants appreciate that the references may have been misplaced by USPTO personnel or contractors working for the USPTO. As a courtesy to the Examiner, and further to the IDS filed June 29, 2001, the Applicants submit herewith a Form PTO-1449 listing those references not considered with the IDS of June 29, 2001, and copies of the references listed thereon. The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of this IDS. It is noted that the IDS filed June 29, 2001, fully complied with 37 CFR 1.98; therefore, for the purpose of clarifying the record, it is respectfully submitted that the date of submission of the above-noted references remains June 29, 2001 (see 37 CFR 1.98(d)(1)).

Claims 1-46 were pending in the present application prior to the above amendment. Claims 18 and 31-46 have been canceled. Accordingly, claims 1-17 and 19-30 are now pending in the present application, of which claims 1-12, 19 and 20 are independent. For the reasons set forth in detail below, all claims are believed to be in

condition for allowance. Favorable reconsideration is requested. The Applicants note with appreciation the allowance of claims 1 and 7.

Paragraph 2 of the Official Action rejects claims 18 and 31-46 under 35 U.S.C. § 112, second paragraph. In response to this rejection, claims 18 and 31-46 have been canceled without prejudice or disclaimer. Please note, the Applicants respectfully submit that the specification teaches that the term "semiconductor device" means any device functioning by using semiconductor characteristics (page 1, lines 11-16). As such, the semiconductor device includes not only a single semiconductor component such as a thin film transistor (TFT), but also an electro-optical device including TFTs, a semiconductor circuit including TFTs and electronic equipment including TFTs. The specification also teaches that such electronic equipment includes a video camera, a digital camera, etc. (pages 22-23). The Applicants further submit that one with ordinary skill in the art is capable of determining the scope of the claims in light of the specification and that the scope includes an electro-optical device including TFTs, a semiconductor circuit including TFTs and electronic equipment including TFTs. Further, the specification teaches that the semiconductor device of the present invention can also be used when an active matrix type electro-optical device such as a liquid crystal display device or an EL (electroluminescence) display device is fabricated (pages 16-17).

As such, the Applicants respectfully submit that the semiconductor device of the present invention may be at least one selected from the group consisting of a personal computer, a video camera, a mobile computer, a player using a recording medium, a goggle-type display, and digital camera, and a projector. Further, the semiconductor device of the present invention may be an organic electroluminescence display device.

Paragraph 4 of the Official Action rejects claims 2-6, 8-12 and 19-30 as obvious based on the combination of U.S. Patent No. 6,077,731 to Yamazaki et al. and JP 09-186336 to Kudo et al. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Yamazaki '731 and Kudo do not teach or suggest a leveling step, an oxygen or oxygen compound concentration of 10 ppm or less in the leveling step, or a leveling step in either a reducing atmosphere or an inert gas.

With respect to independent claims 2-6, 8-12, 19 and 20, the Official Action asserts that Yamazaki '731 teaches "leveling the surface of the semiconductor film by heating ... by containing the concentration of oxygen or oxide compound less than 1 ppm" (page 4, Paper No. 15, citing Yamazaki '731 at column 13, lines 10-18). The Applicants respectfully disagree. It is noted that Yamazaki '731 does not teach the leveling step at column 13, lines 10-18. Rather, Yamazaki '731 appears to teach a crystallization step as can be seen in column 13, lines 1-9. Therefore, Yamazaki '731 does not teach or suggest a leveling step as recited by the claims of the present invention.

Moreover, Yamazaki '731 teaches the oxygen concentration less than 1 ppm in the crystallization step as described in the last paragraph of column 36. On the other hand, independent claims 4-6, 10-12, 19 and 20 recite an oxygen or oxygen compound concentration of 10 ppm or less in the leveling step, which is distinguished from the crystallization step of Yamazaki '731. Therefore, Yamazaki '731 fails to teach or suggest an oxygen or oxygen compound concentration of 10 ppm or less in the leveling step.

Further, independent claims 2, 3, 5, 6, 8, 9, 11 and 12 recite a leveling step in either a reducing atmosphere or an inert gas. The Official Action asserts that Yamazaki '731 teaches "leveling the surface of the semiconductor film by heating ... in reducing atmosphere such as hydrogen or inert gases such as nitrogen" (page 5, Paper No. 15). The Applicants respectfully disagree. Yamazaki '731 appears to teach reducing or inert gases in a crystallization step as described at column 36, line 51 through column 37, line 5. Therefore, Yamazaki '731 fails to teach or suggest a leveling step in either a reducing atmosphere or an inert gas.

Kudo does not cure the deficiencies in Yamazaki '731. The Official Action relies on Kudo to allegedly teach an irradiation of a laser light in air (Id.). Yamazaki '731 and Kudo, either alone or in combination, do not teach or suggest a leveling step, an oxygen or oxygen compound concentration of 10 ppm or less in the leveling step, or a leveling step in either a reducing atmosphere or an inert gas.

Since Yamazaki '731 and Kudo do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789